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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,440	06/26/2003	John Robert Lockemeyer	TH-1808 US	2927

7590 02/03/2006

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EXAMINER
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HAILEY, PATRICIA L

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 02/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/606,440	LOCKEMEYER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Patricia L. Hailey	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-38 is/are pending in the application.
- 4a) Of the above claim(s) 26-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>November 18, 2005</u>   | 6) <input type="checkbox"/> Other: _____                                    |

Applicants' remarks and amendments, filed on November 18, 2005, have been carefully considered. Claim 10 has been canceled; no new claims have been added.

Claims 1-9 and 11-38 remain pending in this application.

#### *Election/Restrictions*

1. Claims 26-38 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected process for the epoxidation of an olefin (claims 26-37), and to a non-elected process for producing a 1,2-diol, 1,2-diol ether, or an alkanolamine (claim 38), there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on December 22, 2004.

Claims 1-9 and 11-25 remain under consideration by the Examiner.

#### *Maintained Rejections*

The following rejection of record has been maintained.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### *Claim Rejections - 35 USC § 103*

3. *Claims 1-9 and 11-25 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hayden et al. (U. S. Patent No. 4,007,135).*

Hayden et al. teach catalysts for the production of alkylene oxides comprising silver supported on a support having a specific surface area ranging from 0.04-10 m<sup>2</sup>/g, median pore diameters of 0.3 to 15 microns, and also comprising a promoting amount of metals such as niobium, tantalum, molybdenum, tungsten, vanadium, chromium, calcium, magnesium, strontium, or barium (considered to read upon the limitation "selectivity enhancing dopants"). See col. 1 lines 20-41 of Hayden et al., as well as col. 2, lines 16-30.

The support may be alumina, and is preferably alpha-alumina. Further, the catalyst preferably comprises 3 to 15% by weight of silver. See col. 3, lines 21-50 of Hayden et al.

Because Hayden et al. disclose an alpha-alumina support having a surface area comparable to that respectively claimed, the weight percentage range of the silver recited in this reference is considered to read upon Applicants' claim limitations regarding the quantity of silver (e.g., "0.17 g/m<sup>2</sup> surface area of the support").

At col. 5, line 28 to col. 6, line 4, Hayden et al. discuss the conversion of ethylene to ethylene oxide, and of propylene to propylene oxide, in the presence of the aforementioned catalysts. These conversions involve contact of the catalyst with feeds comprising either ethylene or propylene, oxygen (in the form of air or commercial oxygen), carbon dioxide, and, optionally, a reaction modifier. Temperatures at which contact takes place ranges from 190°C-270°C for ethylene, and from 200°C to 300° for times sufficient to convert up to 50% of, for example, propylene.

Example 7 of Hayden et al. depicts the preparation of a catalyst comprising alpha-alumina, silver, and barium, wherein the support is impregnated with barium hydroxide, followed by heating in an air atmosphere at 300°C for 60 minutes, followed by forming a second solution of silver and barium acetates. The final catalyst is passed over with a gas mixture comprising 30% ethylene, 8% oxygen, 62% nitrogen, and 4 ppm ethylene dichloride, during which selectivity and conversion were determined at 240°C.

Hayden et al. do not specifically disclose a method for improving the selectivity of a...catalyst", as recited in the instant claims. However, because Hayden et al. disclose the same or similar method steps, conditions, and catalyst components as respectively claimed, it would have been obvious to one skilled in the art at the time the invention was made to reasonably expect that the method of Hayden et al. would result in improved catalyst selectivity, in view of the strong similarities between Hayden et al. and the claimed invention.

### *Response to Arguments*

In response to Applicants arguments that none of the Examples of Hayden et al. teach the employment of rhenium, molybdenum, or tungsten, it is the Examiner's position that, while this is true, the Examples of a reference are not to be construed as Patentees' sole invention. Teachings of a reference are not limited to a preferred embodiment. In re Boe, 145 U.S.P.Q. 507 (CCPA 1966).

Because Hayden et al. disclose the feasibility in employing metals such as Groups IA and IIA metals, molybdenum, and tungsten, such disclosure is considered reasonable motivation and teaching to employ these metals, and is also considered sufficient reading upon Applicants' claims in their present form.

In view of Applicants' arguments, Hayden et al. is not considered to anticipate Applicants' claims. However, Applicants' claims continue to be considered obvious in view of the teachings of Hayden et al., as discussed above.

With respect to Applicants' arguments regarding the prior art's lack of "reasonable expectation of success", it is the Examiner's position that, because the prior art reads upon Applicants' claims regarding the claimed catalyst components and method parameters, as presently claimed, any disclosed or claimed benefits resultant from the claimed invention would be expected to also be exhibited by the prior art, absent the showing of convincing evidence to the contrary.

While Hayden et al. may not specifically disclose the improvement of the catalyst's selectivity, the reference does teach process parameters and conditions comparable to what Applicants claim as their inventive method.

The rejection of record is not based on inherency, but on the basis of reasonable expectation. One skilled in the art would reasonably look at two methods, each of which have different intentions, yet have the same or similar steps, and expect that same intentions, absent the showing of convincing evidence to the contrary, would be envisioned by both methods.

“Similar processes can reasonably be expected to yield products which...have the same properties.” In re Spada, 15 U.S.P.Q. 2d 1655 (Fed. Cir. 1990).

Hayden et al. may not *specifically* disclose improving catalyst selectivity, but the reference is considered to teach the method steps that Applicants’ recite as their claimed inventive method for improving a catalyst’s selectivity. Thus, such an improvement is deemed within the purview of the teachings of Hayden et al. absent the showing of convincing evidence to the contrary.

For these reasons, Applicants’ arguments are not persuasive.

### *Conclusion*

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

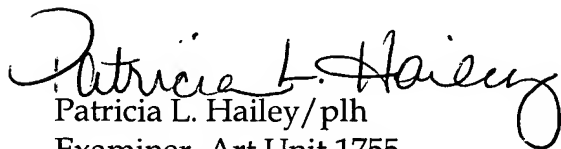
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Hailey whose telephone number is (571) 272-1369. The examiner can normally be reached on Mondays-Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 1700 Receptionist, whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Patricia L. Hailey/plh  
Examiner, Art Unit 1755  
January 23, 2006

  
J.A. LORENGO  
SUPERVISORY PATENT EXAMINER